



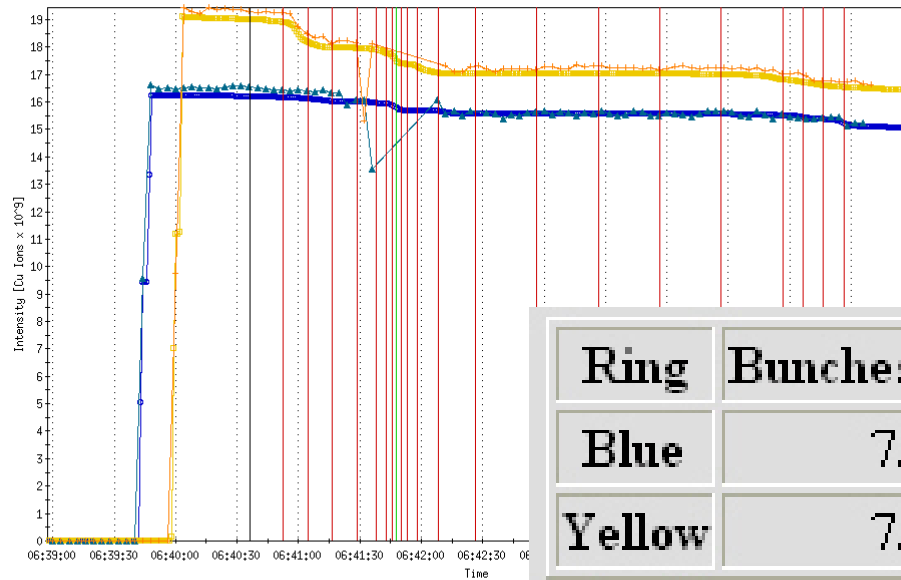
## Chronology last week

- Mon Dec 27** **yellow** ring ready (late night)
- Tue Dec 28** start **set-up**, discover yellow **aperture** problem
- Wed Dec 29** further diagnostics with beams (owl)
- Wed Dec 29** cut vacuum 11am, **beam in yellow** at ~9pm
- Fri Dec 31** **both beams at store**, ramp tuning
- Sat Jan 1** bunch intensity, #bunches (early collisions)
- Sun Jan 2** continue intensity, #bunches, fight gammat4 loss
- Mon Jan 3** development ramp with **R-2-R synchro collisions** at Phenix and Star
- Tue Jan 4** collisions set-up (4 experiments), **collimation**  
→ *collisions overnight (28x28 ~3e9)*
- Wed Jan 5** *experiments magnets set-up (Star, Phenix, Phobos)*



# Yellow ramp development – 7bunches

Window Event



Friday owl

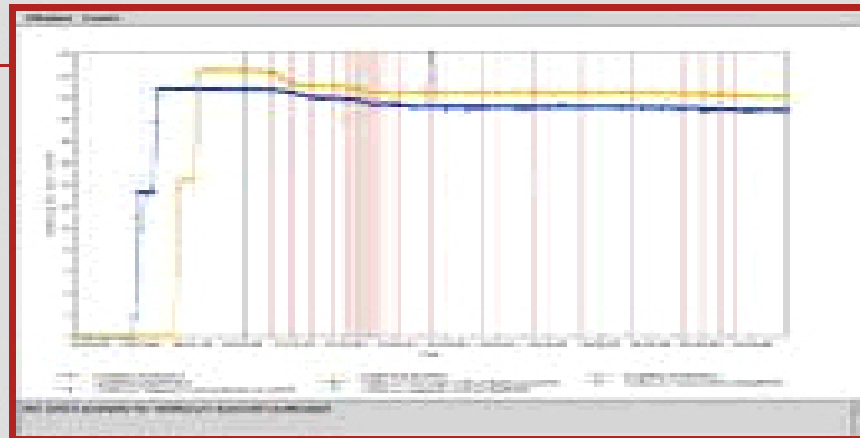
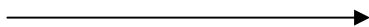


Ring	Bunches/Cycles	Avg Bunch in RHIC ( $10^6$ ions)	Avg
Blue	7/2	3259	
Yellow	7/2	3502	

-AutoEntry

 Jan-01-2005 00:17

Friday eve

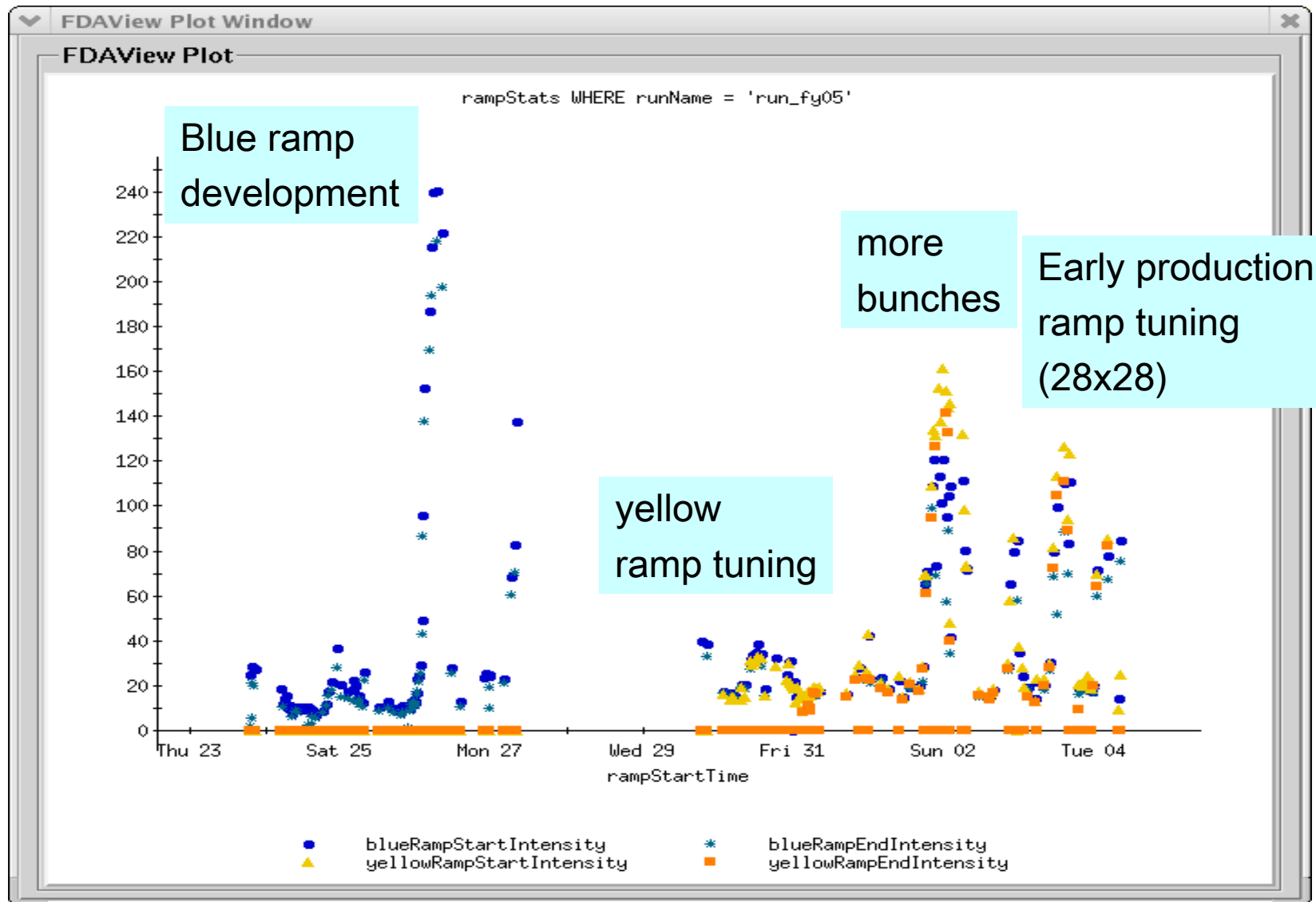


NO DATA available for relMon.ev-lumi:relEventNumM





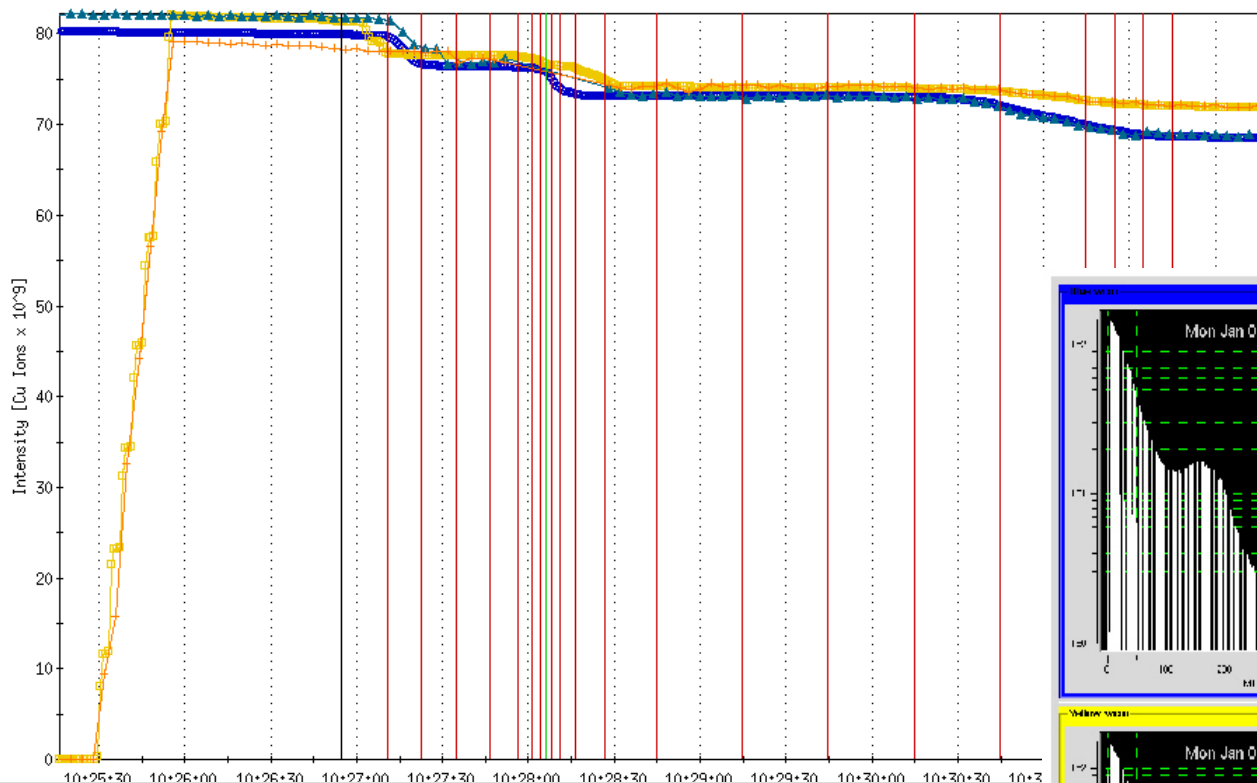
# Intensity history



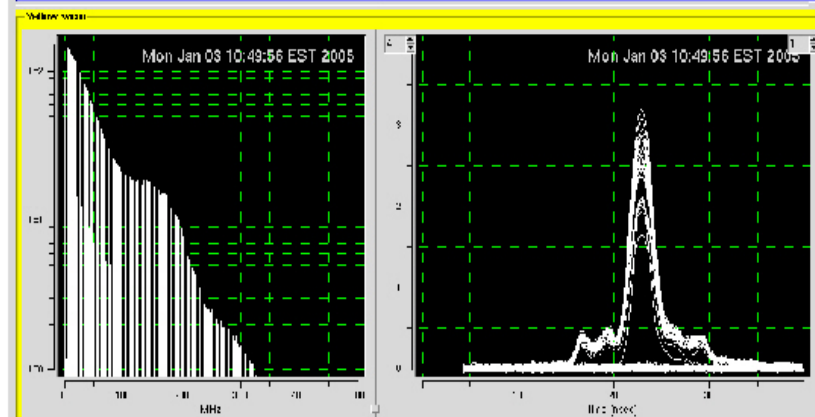
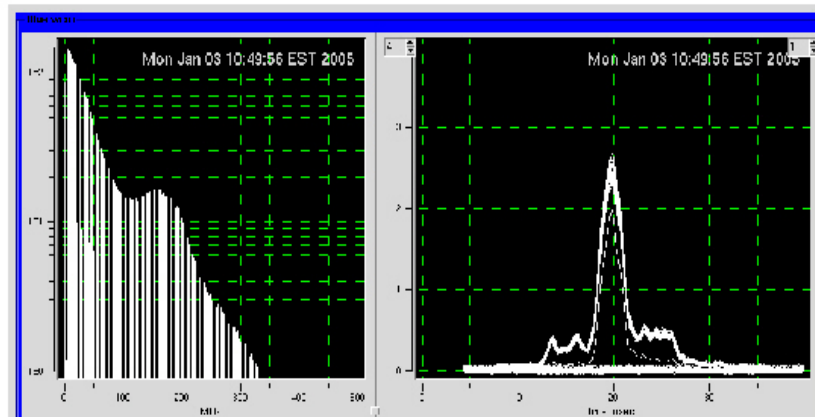


# Early production ramp

Window Event



Improve transmission  
(steering, collimation)



## Injected Beam Statistics for Fill number 5755

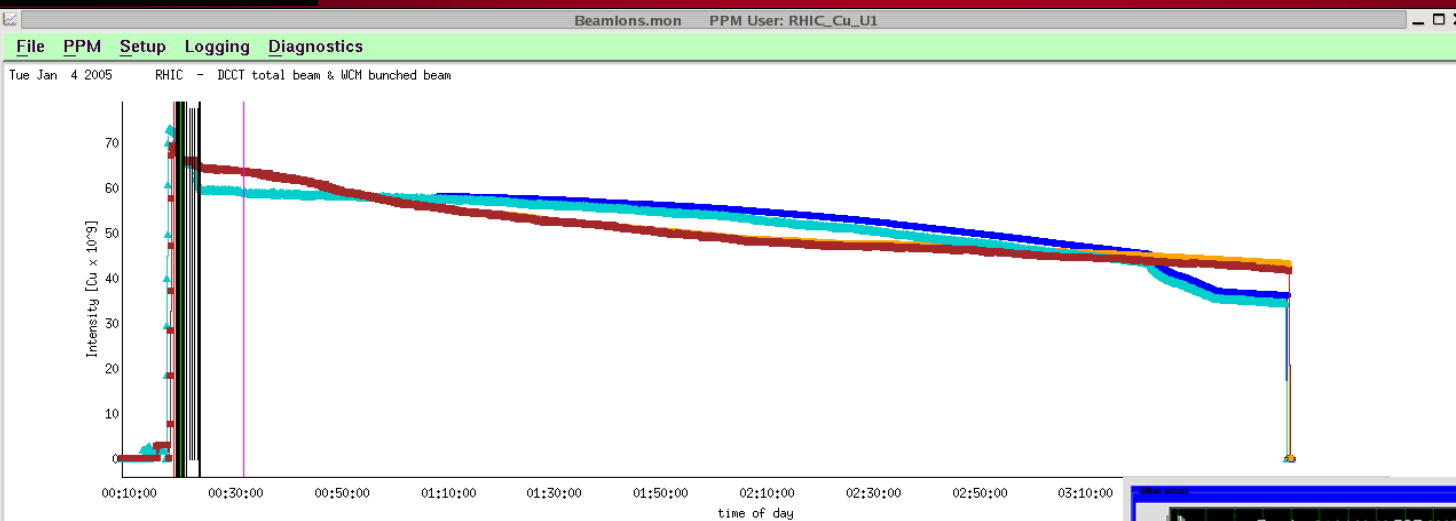
Injection start time: Mon Jan 3 10:24:49 2005

Injection complete time: Mon Jan 3 10:25:53 2005

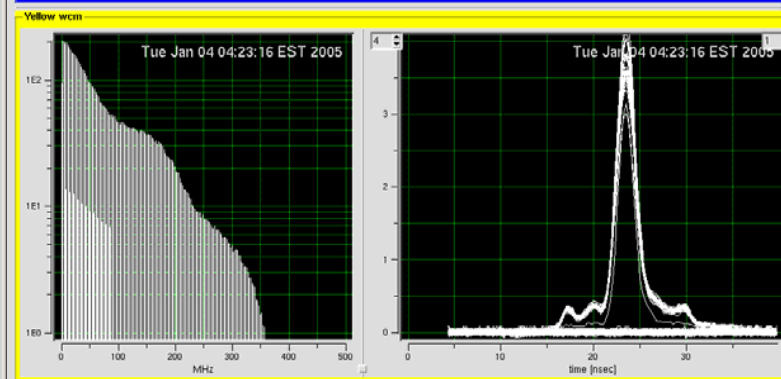
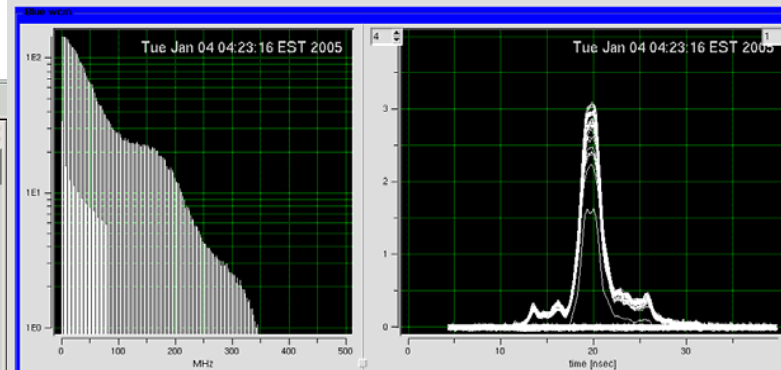
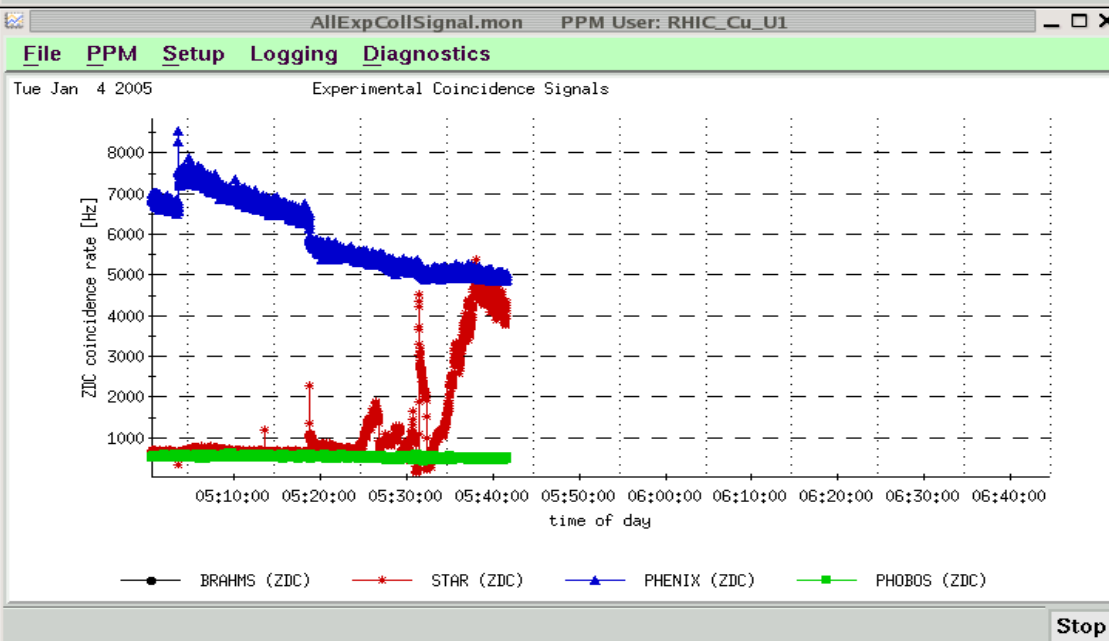
Ring	Bunches/Cycles	Avg Bunch in RHIC ( $10^6$ ions)	Avg Efficiency - XCBM to RHIC
Blue	28/7	2866	0.916
Yellow	28/7	2932	0.957



# Collisions last night



Ramp/store  
reproducible



Stop



## Luminosity increase ramp-up+development during physics

(Optics measurements, IR correction yellow, BBA of triplet BPM's,.....)

28 bunches, increase **bunch intensity** → find limit

Increase **number of bunches** → limit

Expected limitations:

- ❑ Pressure rises, e-clouds
- ❑ Phobos pressure rise
- ❑ Beam-beam
- ❑ Single rates, background